Work Order ID 116241

April-09-14 9:03:06 AM

116241

Item ID: D350-591-312
Revision ID:
Item Name: Heli-Access-Step™ RH

Start Date: 4/09/14 **Start Qty:** 4.00 *4*
Required Date: 4/09/14 **Req'd Qty:** 4.00 *4*
Reference: ~~test or~~ scrap

Accept *N900040100*

Setup Start *NS1*
Stop *NS2*

Cust Item ID:
Customer:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D3272	Rev B								
130	QC5- Inspect part completeness to step on W/O	0.00							
130									
QC	**Memo**	0.00							
Quality Control	PULL FROM STOCK: 10 X D350-591-312 B114393 EXTRUSION WAS FOUND TO HAVE A THIN SIDE WALL, ENG HAS ACCEPTED THE EXTRUSION AS A DEVIATION, AS LONG AS THE LUGS GET WELDED TO THE THICKER SIDE. ULTRA-SONIC ALL STEPS AND NOTE WHICH STEPS ARE ACCEPTABLE. 4 OF THE 10 STEPS ARE NOT ACCEPTABLE - ~~TEST~~ OR SCRAP STEPS								
250	Pick Kit	0.00							
250									
Packaging	**Memo**	0.00							
Packaging	REPACKAGE THE ACCEPTABLE STEPS USING THE ORIGINAL B/NS'								

remove step leg 25st 4/3

KC 14-04-08

14-04-09

APR 10 2014

DAS 06 9-89

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QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC4- 100% Inspect kits for completeness	0.00							
260						DAS 06 9-89			
QC	**Memo**	0.00	APR 10 2014						
Quality Control	ENSURE KITS ARE INCLUDED ON BOXES, PUT ASIDE THE REMAINING 4 KITS TO ADD TO NEW STEPS IN PRODUCTION. to go into B/N 114521								
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	**Memo**	0.00							
Quality Control									

WO 1404-16

WI 4.04.10

Picklist Print

April-09-14 9:03:04 AM

Work Order ID: 116241 *116241*

Parent Item: D350-591-312 *D350-591-312*

Parent Item Name: Heli-Access-Step™ RH

Start Date: 4/09/14 **Required Date:** 4/09/14

Start Qty: 4.00 **Required Qty:** 4.00

Comments: IPP Rev:A04.03.22New issue KJ/RF
IPP Rev:B 07-06-09 Added D3572-1 JLM
IPP Rev:C 08-04-02 ECN1163 DD verified by:EC
IPP Rev:D 08-04-08 ECN1164 DD verified by:eC IPP Rev:D
fixe route seq in bom DD 10.04.28 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D350-591-312 *D350-591-312* Heli-Access-Step™ RH		Manufactured	No				Each	9.0000	**	4			

Location	Loc Qty	Loc Code	
FG	2		
112718	1		
39411	1		
FG083	1		
113448	1		
HALL	6		
114393	6		4

11.04.09

Linda Lacelle

From: Nigel Forbes
Sent: April-08-14 12:25 PM
To: Linda Lacelle
Subject: Fwd: NCR D2622 extrusion
Attachments: D2622-RevC1.pdf; ATT00001.htm

FYI

Sent from my iPhone

Begin forwarded message:

> **From:** "Chris Provencal" <cprovencal@dartaero.com>
> **To:** "Nigel Forbes" <nforbes@dartaero.com>, "Patrick Smith" <psmith@dartaero.com>
> **Cc:** "Eric Downing" <edowning@dartaero.com>, "David Shepherd" <dshepherd@dartaero.com>, "Mike Petsche" <mpetsche@dartaero.com>
> **Subject: NCR D2622 extrusion**
>
> Nigel,
>
> Just to recap what we discussed and what I found:
>
> We have a batch of D2622 step extrusion with eccentric wall thickness side-to-side (the vertical side walls that get welded). The nominal wall thickness is 0.080. The allowable per ANSI H35.2 for extruded aluminum is +/-0.010 max deviation, which agrees with our dwg. The minimum thickness I measured was 0.063", or 0.017 below nominal.
>
> The extruder has corrected the problem and we're waiting on new material. Production wants a disposition on whether we can use this material in the meantime.
>
> The extrusion will have the same strength for passenger loads. This won't affect the inertia of the tube for vertical loading, as the top and bottom surfaces are unaffected and the side walls are eccentric (same total thickness). If we ensure the thicker side (which are over tolerance) is the side that gets the welded lugs then the thinner side should see very little load. With side getting all the load transfer being over tolerance, the step will be stronger and less prone to cracking.

Because of this, I consider it an acceptable deviation as long we ensure the thicker side gets the welded lugs, and that the minimum wall thickness on the opposite side is not below 0.063". I believe we have welded several steps prior to noticing the problem. We should scrap any steps that have welded lugs on the thin wall.

David, I've cc'd you on the email in case you have input or disagree with my conclusion.

-Chris